Chapter 1

MONEY, CURRENCY, AND FOREIGN EXCHANGE (FOREX)

The most basic questions and concepts we must address involve the differences between money, currency, and foreign exchange (FOREX). All too often these terms are interchanged. With equal frequency, the differences are blurred and misconceptions are developed. Aren't the three terms one and the same? The answer is no.

The Barter Process and the Evolution of Money

Money is the primal evolution of barter. It was developed as a convenient means for exchanging goods and services. If my education correctly serves me, the first recorded book entries date back 5,000 years ago to the Sumerians who were defined as the first society. Book entries could only become a reality as numeric systems were developed. This is how money allegedly originated.

Certainly, there were methods to exchange goods and services before the Sumerians. The barter process appears in cave wall drawings and remains widely used today. However, barter lacks efficiency because it inevitably involves considerable negotiation to consummate a transaction. Value must be determined through a process of bidding and offering. Sound familiar? For example, suppose an ancient tribesman trapped a few beavers while a fellow tribesman caught several fish. Not needing all the

beavers or all the fish, the two may decide to exchange beaver for fish. Depending on the perceived value of beaver pelts in the mind of the fisherman versus the relative hunger of the trapper, some ratio of beaver to fish would be agreed upon.

Understandably, perceived values will change. The first inkling of seasonality can be deduced from the previous example by overlaying the need for warmth during the winter onto the nonseasonal requirement for food. Logically, pelts should fetch more fish as temperatures cool. The trapper is likely to fatten up during winter, but go hungry in the summer. This suggests that the trapper will expand his product line to include meat as well as pelts. This overcomes seasonal problems. Both the trapper and fisherman must spend the better part of their day accumulating their bounties. Perhaps neither has time to build or maintain shelter. However, another tribesman discovers that his lack of skills as hunter or fisherman is offset by his ability to construct sturdy huts.

The hut builder introduces the concept of cyclical supply and demand as well as an underlying seasonal influence. He must build huts when the weather is mild and there is easy access to the ground. His unique challenge derives from his product's durability coupled with seasonal supply. He develops a prolonged barter whereby he swaps a hut for a year's supply of fish or meat. Thus, the hut builder's commitment to exchange today is carried forward in payments. Heavens! Was this the first mortgage?

The model grows more complex when the hut builder discovers that the value of his trade exceeds his requirements for fish and meat. Since he cannot consume all he has bartered for, he decides to use his excess to acquire a wagon from the wagon maker to transport his building materials and increase his efficiency. Perhaps he also exchanges fish and meat for tools. The increased efficiency only brings the hut builder more fish and meat. He decides to train other hut builders with the understanding that they will work for him and receive a portion of his meat and fish. The first real-estate tycoon is made. In all likelihood, he doesn't even pay for the land!

We see an economic system emerging from barter. All the while, however, transactions and relative values must be negotiated. Eventually, the hut builder's tradesmen may decide to go off on their own. Suddenly, there is competition in the real-estate market. With equal certainty, the tribe will have many fisher-

men, hunters, wagon builders, toolmakers, and other tradesmen. If competition becomes heated, arguments can develop, and, alas, we see the makings of war.

This is not necessarily a historically correct portrayal. The metaphor simply illustrates how a barter economy develops and functions. Reviewing and understanding this fundamental economic system is important when we seek to determine FOREX trading strategies based upon relative values for global goods and services. With the decline of colonization, nations have become regional. Since global resources are highly regional, national wealth becomes a function of location, population, and sophistication. In turn, national wealth determines a currency's relative strength or weakness.

Although this concept will be covered in later chapters, I won't hold you in total suspense. Some basic examples can be illustrated by Middle East oil or South African gold and platinum. These natural and valuable resources provide foundations for national economic security. They also fuel currency exchange. Japan relies upon ingenuity to efficiently convert raw materials into finished goods. The yen's value rises and falls relative to Japan's innovation and related exports. Each nation relies upon particular resources to derive wealth. As we will see, this wealth is a driving force behind fluctuating currency values. However, it is not the only driving force.

Returning to our barter example, we can identify a need for a more efficient method of exchange. A toolmaker observes that some metal materials have a mysterious attraction. A shiny yellow metal is far heavier than the harder bronze he uses for an ax or hammer. His neighbor takes a fancy to the yellow metal and offers to exchange his skills as an artisan for a portion of the shiny yellow metal. Incredibly, the entire tribe, as well as other tribes, finds this yellow metal universally attractive. Of course, this metal is gold. After a sufficient quantity of gold becomes available, tribal members decide to mold it into uniform pieces called coins. They examine a fundamental product like fish and see that one fish fetches two beaver pelts. If they set the value of one fish equal to one gold coin, then one gold coin buys two beaver pelts. Thus, the value of a gold coin is established as a ratio to a common barter product with a relatively stable perceived value.

This example of converting gold into money does not take seasonal or cyclical values into consideration. It is only a way to explain the probable transition from barter to money. You are probably saying, "Tell me something I don't know." I emphasize that basic concepts translate into a more precise understanding of how FOREX works.

In reality, gold is a convenient example rather than a historically accurate account of how money emerged. Gold and even silver were too scarce to be effective forms of money. This is why the Phoenicians resorted to shells, while other cultures minted copper, tin, and iron or used glass, beads, and stones. This does not imply that gold and silver were not used for exchange. However, gold and silver's widespread use for day-to-day transactions was not common until far more sophisticated economies evolved.

As we will see, gold and silver were symbols of wealth and *stores of value*. These metals were used for more substantial transactions often involving exchange between kings or noblemen. These metals represented the first significant form of FOREX. Equally important, gold and silver were used to measure overall and relative wealth. You may say, "Wealth is wealth." This truism stands; however, there is a concept of relative wealth that plays an important role in determining modern international currency trends.

The Family Tree of Money, Currency, and FOREX

Most of us are familiar with trading cards. Whether trading baseball or Pokémon cards, children probably develop their first sense of value and negotiating skills by swapping trading cards. Indeed, some of us learned through this same primal exercise in FOREX. We can analyze card swapping in three ways. We can assume each card represents a form of currency whereby a specific card is likened to the yen while another symbolizes the dollar. We immediately comprehend that the card's value is directly associated with its scarcity relative to demand. Children instinctively know that the more rare the card, the more valuable it becomes relative to other cards or simply for outright purchase.

By the same token, children grasp the concept of storing value when they refuse to relinquish extremely valuable cards

regardless of the offer. Of course, this is where children may appear irrational. After all, every card should have a price, right? Interestingly, adults and, more significantly, entire societies can enter periods of irrational savings. The concept of storing value, regardless of alternatives, can be seen as a confidence crisis. In the child's case, he or she lacks confidence that he or she will secure a replacement card. Suddenly, this card is the only such card in the child's mind—a *must have* or *must keep*. When socioeconomic panic sets in, history suggests we fall back on primal wealth symbolism like gold, property, or essential assets. Today, we call this a flight to quality.

Experienced currency traders might legitimately disagree with equating each unique card with a unique currency. It is not necessarily the case that the scarcest currency fetches the highest price or attains the greatest perceived value. In fact, the most abundant currency, like the dollar, is frequently viewed as the most valuable. Therefore, another viewpoint is that each playing card represents a unit of currency similar to the $1, $5, $10, and $20 bills going up to the highest denomination. In this example, the trading card becomes *money* rather than *currency*. What's the difference?

Simply put, money represents the means of exchange within its country of origin. When we think of money, we immediately resort to the bills and coins in our pockets or purses. We rarely conjure up an image of equalizing values between our pocket cash and the money of western Europe or the Pacific Rim. The difference is subtle, but consider that money has a fixed value within its place of origin. If baseball cards had a fixed value, they would not be negotiated. You would simply trade a known *X* number of cards for a known *Y* quantity of cards. In turn, the ratio of cards to each other permits different mixes of cards to buy goods and services. Observation tells us this is not the case. Trading cards change value in accordance with the inventories of those making the bids and offers.

Today, money, currency, and FOREX are like a family tree. Currency is money once removed. They are similar, yet they operate in different forums for different purposes. Another way to view trading cards expounds upon the market concept of the bid and offer. At any given moment, groups of children sporting different card inventories gather in separate markets to set their

relative card values. Depending upon the inventories available within each market, the same cards will take on different values. Given the sophistication and indulgence of our newest generations, kids might plan to be in different markets at the same time by communicating bids and offers via cell phone or email. Behold, children participating in arbitrage!

When card values are exchanged in broad markets, we see a metaphoric example of FOREX. Taking this forward another step, money is used to buy local goods and services. Assume a bushel of soybeans is worth $6. We know that a $1 bill and $5 bill will purchase a bushel of beans. If we use a $10 bill, we receive $4 in change. A drought may drive soybeans higher, whereas good weather may lower prices. If the price is stable at $6, what is the same bushel worth in pounds (£)? The answer lies in the relative value of pounds to dollars. Consider that if the pound loses value against the dollar, U.S. soybeans become more expensive in the United Kingdom, but remain the same price in dollars. This is another way to differentiate money from currency. Recognize that this example uses a single commodity priced in two currencies. When soybeans are sold in the United Kingdom, local influences may make the price in pounds higher or lower. Thus, local supply and demand prevails to set local prices.

It does not take a great deal of perception to know where the example culminates. If we remove the soybeans and simply trade pounds against dollars, we are dealing in FOREX. In the FOREX market, the supply and demand for different currencies at any given moment establishes an exchange value—hence the expression *foreign exchange*. When you trade FOREX, you attempt to anticipate fluctuations in relative currency values. More often than not, you are not concerned with the price of local goods and services in local monies. There is an obvious link between local currency strength and weakness that is associated with inflation and deflation. If the dollar is inflating while the pound is not, there is a very good chance the pound will appreciate against the dollar. Unfortunately, FOREX relationships have become highly anticipatory. This means that today's inflation might be discounted by tomorrow's anticipated price correction. The subtle aspects of forecasting will be explained in later chapters. For now, keep this concept in the back of your mind as we move forward.

The Mechanisms of Money, Currency, and FOREX

With a modest understanding of money, currency, and FOREX, the next step in building a trading strategy involves breaking each component down into its mechanism. Here, distinctions between money and currency tend to blur. With concentration, we can maintain differentiation to develop more profound interpretations of intermarket events. Today's money consists of cash and book entries. Both use common denominations or units. U.S. money begins with the unit of currency called the *dollar*. This is fractionalized or multiplied as required to refine purchase prices. The fractions are on a base-10 system beginning with $1/100^{th}$ of $1 called the cent (¢). The physical representation of 1¢ cent is the penny. Cent is the unit, whereas penny is the coin. Five cents is coined as the nickel. We are still dealing with the cent, but our physical money can be either 5 pennies or 1 nickel. Of course, 10¢ is a dime, 25¢ is a quarter, and, oddly, 50¢ is a 50-cent piece.

I indulge in this elementary-level exercise because it is exceedingly important to make the leap from fractional units to currency units. The entire process of FOREX trading is based upon common fractional values known as *pips*. A pip is the common denominator between currencies much like the cent is the denominator for the dollar. While writing this text, I could only identify one U.S. product where domestic prices were quoted in fractions of a penny. Perhaps you can identify more. What is it? For some strange reason, U.S. retail gasoline is priced ending in nine-tenths of a cent. I've always wondered why this is always rounded up to the nearest cent. Who is keeping all those one-tenths?

Those familiar with Charles Dickens' novel *Great Expectations* might associate the word *pip* with that book's central character. We less-literary folk must direct our attention to the last significant decimal of a quoted currency. Again, this seemingly simple definition takes on monumental importance because pips determine the most common intraday and interday spreads and are also used to price transactions. The spread in pips can be the market maker's commission and, thus, your trading cost. As we will discuss in further detail, the pip is used when currencies are quoted against each other in the cash, Interbank, or electronic spot FOREX markets. When the reciprocal is correlated to the

dollar in U.S. futures and options, the pip disappears. Each marketplace has its own language and structure. Once you understand each market's operations, including its advantages and disadvantages, you can make an educated decision about how and where to participate.

When conducting seminars on FOREX trading, I often draw the parallel between components like money or currency and quantum physics versus cosmetology. Admittedly, this correlation is a scientific stretch and is not intended to infringe upon the territorial imperative of our most brilliant academicians. FOREX trading does not require the CERN particle accelerator to identify its inner most workings. However, the perspectives are similar to emphasize a FOREX trader's required multiplicity. The tiniest particles within our universe were born out of the greatest cosmological event presumed to be the Big Bang.

Money is derived from the most fundamental human premise—faith. This faith that money is, in fact, valuable must be governed by multiple facilities that include government treasuries, central banks, commercial banks, consumer banks, specialty banks (savings and loans, credit unions, government lending institutions like Fannie Mae and Freddie Mac, and so on), the International Monetary Fund, and international currency markets. In addition, each sovereign's taxing authority plays a role in the amount of money citizens have available to spend and the amount governments have to spend or waste as they see fit. Each link in money's governing chain plays a role in determining value. Relationships between money institutions such as banks, coupled with the monetary policy of the governing institutions like the Federal Reserve or Treasury, determine the money supply. When correlated with demand, money establishes its value relative to domestic goods and services as well as its value as international currency.

The Regulation of Money Supply

As you can see, our very simple explanations of money, currency, and FOREX begin to become more complex. The amount of money we have is primarily regulated by interest rates and transactions commonly called *open market operations*. In the United States and many other nations, money supply is also a function

of reserve requirements. The focus on money and related banking mechanisms alone can fill a book. Indeed, many texts have been written on the subject. A basic understanding of how money supply is regulated is another essential piece of the FOREX trader's strategic puzzle. This is because money becomes a commodity for FOREX trading. Money translates into currencies that can be exchanged at rapidly fluctuating values to generate a profit or, heaven forbid, a loss.

Three Expressions of Money Supply in the United States

In the United States, money supply is expressed as three numbers referenced as M1, M2, and M3. These three expressions have different presumed transaction velocities. M1 is cash in circulation plus primary bank deposits called *demand deposits*. M2 takes savings deposits into consideration. Following the U.S. Savings and Loan Crisis, many analysts discounted M2 as a relic because banking structurally changed to give savings deposits more flexibility. With check-drawing privileges, saving accounts are almost the same as demand deposits with the exception that they pay nominal interest. The advent of money market accounts required a third category encompassed in M3. Together, these three measures of supply comprise the total amount of local currency capable of circulating within the United States.

During the 1970s through the 1980s, FOREX traders keenly focused on money supply. It was a Friday ritual to bet on the change in M1 and M2, and therefore the change in U.S. currency value relative to other currencies. The premise was simple. If M1 and M2 grew appreciably, the dollar should weaken against other currencies —all things being equal. If the supply of U.S. currency shrank while demand remained stable, the dollar's value should increase. Also, flooding the money supply implied increasing inflation. Inflation meant devaluation.

The Facilities and Principles for Regulating Fluctuation

The classic formula for determining domestic price levels postulates that the price level is equal to the velocity of money

multiplied by the money supply. Referencing college texts such as the famous 1948 book *Economics* by Paul Samuelson:

$$P = MV$$
$$\text{Price} = \text{Money Supply} \times \text{Transaction Velocity}$$

More money in circulation chasing the same number of goods at an increasing velocity leads to inflation (a rising price level). Of course, this is a market truism, too! The price of any commodity is a function of how much money we throw at it and how fast we throw it. This is easy to understand if we imagine an auction. If the room is crowded with people holding fists full of cash, it's a good assumption the value of auctioned items will be high. If a small crowd with lousy credit shows up, it is unlikely auctioned items will reach their upset prices.

As FOREX trading became more popular and sophisticated, pricing models grew more anticipatory. In other words, traders wanted to get the jump on money supply by examining the underlying elements driving M1 and M2. Interest rates are first in line. Central banks have the authority to change lending rates between themselves and commercial banks as well as the loan rates between commercial banks. Lower rates permit more borrowing that, in turn, increases cash in circulation. The more cash there is circulating, the greater the demand for goods and services. As demand grows, the economy grows.

Of course, too much cash creates excessive demand. When too much cash chases a static supply of goods and services, prices are forced higher. This is the most fundamental market dynamic. The relationship between price and money supply has a role in determining relative currency value. Money in circulation represents currency.

The Federal Reserve's ability to increase money supply is complemented by tools to limit money supply. The most obvious tool is the capacity to raise interest rates to discourage borrowing. This drains cash in circulation with the objective of limiting demand for goods and services.

It is essential to understand that these actions and their associated results are generalizations that have subtle or even blunt harmonics. For example, increasing interest rates also entice savings. Saving money removes it from circulation. Our central

bank has a solution to this potential problem. In addition to setting interest rates, the Federal Reserve can change the ratio of deposits to loans through an adjustment in the reserve requirement. The reserve requirement is the amount of cash that a bank must hold to cover immediate withdrawal demands.

The mixture of reserves and interest rates becomes a complex economic elixir as we examine the theoretical and actual effects of altering reserves and interest rates. If a bank is permitted to loan a portion of its deposits, the amount of money expands by the reserve ratio. This is called the *multiplier* because the reserve requirement actually multiplies the amount of cash in circulation.

Although this book is not intended to be a text on money and banking, the subject is inseparable from understanding what makes FOREX fluctuate. If you learn anything about modern FOREX, it should be that it is part of a regulatory mechanism. For all practical purposes, money as it is created today is a fiction. Assets backing much of the world's currency do not actually exist, although government authorities will beg to differ! Whether we examine operations of the U.S. Federal Reserve (affectionately called the FED),or look at western European central banks operating under the Maastricht Treaty, the principles and facilities are designed to achieve the same results—regulate money in circulation.

Efficient Economic Theory in Modern Currency Trading

Recall our first discussion of barter and the evolution of money. We know monetary value is associated with the ratio of a unit of currency such as $1 and the amount it can buy. What is the amount it can buy? Obviously, we must know the reference commodity. Is it an amount of gold or sugar? Assume it is sugar. Suppose $1 can buy 10 pounds of white sugar. Assume £1 can buy 20 pounds of sugar. It stands to reason that £1 will have a value of $2. It is simple algebra.

This simplistic algebraic relationship was expressed by Navarro Martin de Azpilcueta who lived during the time of Christopher Columbus (1492–1586). He postulated that the values of the same goods in different countries created a ratio for the

relative value of different currencies. In its original expression, the theory was simple and suggested the relationship was absolute. The concept of purchasing power parity was remarkable for Azpilcueta's time since it came at the leading edge of the Age of Mercantilism. Of course, his assumption lacked economic sophistication because it presumed that goods within each country were the same. As mercantilism evolved into international commerce, it became clear that divergent goods exclusively available from certain countries drove currency parity. Similar goods might be used to define an approximate currency relationship. Thus, an ounce of gold could be used as a standard to determine the relative value between currencies. However, the forces that determined the gold ratio were independent.

Silk and spices came from the Orient. Weapons, ships, and mechanical devices came from Europe. How can these dissimilar goods be reconciled? History students know that mercantilism was a primary catalyst for colonialism. Nations simply took over resources in foreign lands. Thus, foreign products could be valued in local currencies.

How does this apply to modern currency trading? The foundation of any nation's wealth was previously established by its natural resources. Thus, if silk were an exclusive product of China, then China's wealth would be defined by demand for silk from nonproducing nations. A nation rich in gold would be rich if other nations relied upon a gold standard. This empiric conclusion was challenged during the 1980s and 1990s. A phenomenon labeled *Japan Inc.* suggested that a nation could become wealthy based upon its ability to convert another nation's raw materials into finished products.

This will be covered in greater detail later. However, the evolution of efficient economic theory actually altered the way currencies fluctuated. Most notably, post World War II Germany took full advantage of a consumer economy to build wealth and drain gold reserves from other nations. Japan also capitalized on being prohibited from building or maintaining a war machine. Radios, TVs, and cars became the measure of the yen and deutsche mark. Explosive economic growth followed both World Wars. By the 1960s, Western economies were becoming more diversified and complex. Growth was being restricted by monetary standards, primarily gold.

Learning from the Great Depression, U.S. and European monetary policy looked for an alternative to asset-backed currency. Eventually, gold was abandoned as a standard. Floating currencies took gold's place. Some proponents of asset-backed currency insist we must return to a gold standard. Although gold appears to be demonetized, it continues to play a role in cross-parity calculations. As we will see, gold remains a hidden reserve asset and potential monetary measuring stick.

The Ongoing Evolution of FOREX

It is often said that the more things change, the more they remain the same. Currency markets demonstrate that this is partially true. Although the concept of money has evolved to include paper bills, coins, checks, credit and debits cards, and electronic book entries, the essential function remains the same. Although international currencies have progressed from asset-backed valuation to floating parities, currency is still distinguishable from region to region. However, FOREX has changed its methods and philosophies many times over the past few decades. Indeed, by the time you finish this book, there are likely to be a dozen new twists to FOREX. From strategies to trading forums, FOREX is a moving target with massive profit possibilities. That is why FOREX is emerging as the most exciting and fastest moving market in the world!